

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A flexible membrane for a resistive touch screen display, said flexible membrane comprising:
a glass laminate, wherein said glass laminate consists of:
an ultra-thin glass layer having upper and lower surfaces and a peripheral edge therebetween;
a polymer layer having upper and lower surfaces and a peripheral edge therebetween; and
an ~~optical~~ adhesive between said ~~ultra-thin~~ glass layer and said polymer layer for bonding the two layers together, said glass layer being smaller than said polymer layer wherein said peripheral edge of said glass layer lies within said peripheral edge of said polymer layer.~~said optical adhesive holding said ultra-thin glass layer to said polymer layer.~~
2. (Cancelled)
3. (Currently Amended) The membrane of claim 2 1, wherein said ~~optical~~ adhesive seals around said peripheral edge of said glass layer ~~is allowed to build up about the edges of said glass layer.~~
4. (Currently Amended) The membrane of claim 1, wherein said glass layer is approximately less than 0.5 mm thick.
5. (Currently Amended) The membrane of claim 1, wherein said polymer layer is ~~comprised of~~ comprises a polyester film approximately 0.175 mm thick.
6. (Cancelled)
7. (Cancelled)

8. (Cancelled)
9. (Currently Amended) The membrane of claim 1, wherein said ~~optical~~ adhesive is an optical adhesive formed in a uniform thickness in the range of approximately 0.025 to 0.05 mm in the area between said glass layer and said polymer layer.
10. (Cancelled)
11. (Currently Amended) In a touch screen having a flexible outer membrane with a first conducting surface, a backing surface with a second conductive surface, and sensors to detect contact between the first conducting surface and the second conducting surface, the improvement comprising:
the flexible outer membrane, wherein the flexible outer layer consists of
an ultra-thin glass layer having upper and lower surfaces and a peripheral edge
therebetween;
a polymer layer having upper and lower surfaces and a peripheral edge therebetween; and
an ~~optical~~ adhesive between said ~~ultra-thin~~ glass layer and said polymer layer for bonding the two layers together, said glass layer being smaller than said polymer layer wherein said peripheral edge of said glass layer lies within said peripheral edge of said polymer layer. said
~~optical-adhesive holding said ultra-thin glass layer to said polymer layer.~~
12. (Cancelled)
13. (Currently Amended) The touch screen of claim ~~12~~ 11 wherein said optical adhesive is allowed to build up ~~about the edges~~ around said peripheral edge of said glass layer.
14. (Currently Amended) The touch screen of claim 11, wherein said glass layer is ~~less than~~ approximately 0.5 mm thick.

15. (Currently Amended) The touch screen of claim 11, wherein said polymer layer is ~~comprised of~~ comprises polyester film approximately 0.175 mm thick.
16. (Cancelled)
17. (Cancelled)
18. (Cancelled)
19. (Currently Amended) The touch screen of claim 11, wherein said ~~optical~~ adhesive is an optical adhesive formed in a uniform thickness in the range of approximately 0.025 to 0.05 mm in the area between said glass layer and said polymer layer.
20. (Cancelled)
21. (Currently Amended) A resistive touch screen display, said display comprising:
a flexible membrane, wherein said flexible membrane consists of:
an ultra-thin glass layer having upper and lower surfaces and a peripheral edge therebetween;
a polymer layer having upper and lower surfaces and a peripheral edge therebetween,
said glass layer being smaller than said polymer layer wherein the peripheral edge of said glass layer lies within the peripheral edge of said polymer layer, said polymer layer being larger than said glass layer and said polymer layer extending beyond the periphery of said glass layer; and
an ~~optical~~ adhesive between said ~~ultra-thin~~ glass layer and said polymer layer for bonding the two layers together, said optical adhesive holding said ultra-thin glass layer to said polymer layer;
a backing surface;

a pressure sensitive adhesive affixed between the periphery of said ~~polyester~~ polymer layer and said backing surface;

an elastic tensioner affixed between the periphery of said ~~polyester~~ polymer layer and said backing surface, said elastic tensioner being adjacent to said pressure sensitive adhesive;

a first conductive layer ~~affixed~~ applied to said lower surface of said ~~polyester~~ polymer layer;

a second conductive layer ~~affixed~~ applied to said backing surface; and
sensors used to detect where said first conductive layer contacts said second conductive layer.

22. (Currently Amended) The touch screen of claim 21, wherein said glass layer is ~~less than~~ approximately 0.5 mm thick.

23. (Currently Amended) The touch screen of claim 21, wherein said polymer layer is ~~comprised of a~~ polyester film.

24. (Currently Amended) The touch screen of claim ~~24~~ 23, wherein said ~~polymer layer~~ polyester film is approximately 0.175 mm thick

25. (Cancelled)

26. (Cancelled)

27. (Currently Amended) The touch screen of claim 21, wherein said ~~optical~~ adhesive is an optical adhesive formed in a uniform thickness in the range of 0.025 to 0.05 mm in the area between said glass layer and said polymer layer.

28. (Cancelled)

29. (Currently Amended) The touch screen of claim 21, wherein said ~~optical~~ adhesive is ~~allowed to build up~~ forms a bead about the ~~outer~~ peripheral edge of said glass layer.
30. (Currently Amended) The touch screen of claim 21, wherein said elastic tensioner ~~preferably~~ comprises a silicon rubber.
31. (Original) The touch screen of claim 21, wherein said touch screen further comprises an area insulator layer between said polymer layer and said pressure sensitive adhesive.
32. (Original) The touch screen of claim 31, wherein said area insulator comprises an ultraviolet ink film.
33. (Withdrawn) A process for the creation of a flexible laminate membrane for a resistive touch screen, the flexible laminate membrane having a glass layer and a polyester layer, the process comprising the steps of:
- applying an optical adhesive to said glass layer;
 - affixing a polyester layer over said optical adhesive;
 - rolling said optical polyester layer from the center of said polyester layer outwards
 - to remove excess optical adhesive and air bubbles; and
 - pressing said polyester layer, glass layer and optical adhesive combination in a high pressure press to ensure a uniform level of optical adhesive.
34. (Withdrawn) The process of claim 33, wherein said pressing involves more than 5 tonnes of pressure.

35. (Withdrawn) The process of claim 33, said process further comprising placing an absorbent medium over said glass layer during said pressing to absorb excess optical adhesive.
36. (New) A flexible membrane for a resistive touch screen display, said flexible membrane comprising:
a glass laminate, wherein said glass laminate consists of:
an ultra-thin glass layer;
a polymer layer having upper and lower surfaces;
an optical adhesive between said ultra-thin glass layer and said upper surface of said polymer layer, said optical adhesive holding said ultra-thin glass layer to said polymer layer; and
an insulating film of ultraviolet ink applied in a peripheral band to said lower surface of said polymer layer.
37. (New) The membrane of claim 36, said polymer layer being larger than said glass layer to extend beyond the periphery of said glass layer.
38. (New) The membrane of claim 37, wherein said optical adhesive is allowed to build-up about said periphery of said glass layer.
39. (New) The membrane of claim 36, wherein said glass layer is approximately 0.5 mm thick.
40. (New) The membrane of claim 39, wherein said polymer layer is a polyester film approximately 0.175 mm thick.
41. (New) The membrane of claim 40, wherein said optical adhesive is formed in a uniform thickness in the range of 0.025 and 0.05 mm between said glass layer and said polymer layer.

42. (New) In a touch screen having a flexible outer membrane with a first conducting surface, a backing surface with a second conductive surface, and sensors to detect contact between the first conducting surface and the second conducting surface, the improvement comprising:
the flexible outer membrane, wherein said flexible outer layer consists of:
an ultra-thin glass layer;
a polymer layer having upper and lower surfaces;
an optical adhesive between said ultra-thin glass layer and said upper surface of said polymer layer, said optical adhesive holding said ultra-thin glass layer to said polymer layer; and
an insulating film of ultraviolet ink applied in a peripheral band to said lower surface of said polymer layer.
43. (New) The touch screen of claim 42, said polymer layer being larger than said glass layer to extend beyond the periphery of said glass layer.
44. (New) The touch screen of claim 43, wherein said optical adhesive is allowed to build-up about said periphery of said glass layer.
45. (New) The touch screen of claim 42, wherein said glass layer is approximately 0.5 mm thick.
46. (New) The touch screen of claim 45, wherein said polymer layer is a polyester film approximately 0.175 mm thick.
47. (New) The touch screen of claim 46, wherein said optical adhesive is formed in a uniform thickness in the range of 0.025 and 0.05 mm between said glass layer and said polymer layer.

48. (New) A resistive touch screen display, said display comprising:
a flexible membrane, wherein said flexible membrane consists of:
an ultra-thin glass layer;
a polymer layer, said polymer layer being larger than said glass layer to extend beyond the peripheral edges of said glass layer by a predetermined distance in each direction; and
an optical adhesive between said ultra-thin glass layer and said polymer layer, said optical adhesive holding said ultra-thin glass layer to said polymer layer;
a backing surface;
a pressure sensitive adhesive affixed between the periphery of said polymer layer and said backing surface;
an elastic tensioner affixed between the periphery of said polymer layer and said backing surface, said elastic tensioner being adjacent to said pressure sensitive adhesive;
a first conductive layer applied to said lower surface of said polymer layer;
a second conductive layer applied to said backing surface;
sensors used to detect where said first conductive layer contacts said second conductive layer; and
an area insulator layer between said polymer layer and said pressure sensitive adhesive, said area insulator comprising an ultraviolet ink film.
49. (New) The touch screen of claim 48, wherein said optical adhesive is allowed to build-up against said peripheral edges of said glass layer.
50. (New) The touch screen of claim 48, wherein said glass layer is approximately 0.5 mm thick.
51. (New) The touch screen of claim 50, wherein said polymer layer is a polyester film approximately 0.175 mm thick.

52. (New) The touch screen of claim 51, wherein said optical adhesive is formed in a uniform thickness in the range of 0.025 and 0.05 mm between said glass layer and said polymer layer.
53. (New) The touch screen of claim 48, wherein said ultraviolet ink film is applied in a band to extend inwardly, by predetermined amount, onto said lower surface of said polymer layer relative to said pressure sensitive adhesive to provide a zone of insulation between said lower surface of said polymer layer and said backing surface inwardly adjacent of said pressure sensitive adhesive.